



Douglas A. Ducey  
Governor

State of Arizona  
**Oil and Gas Conservation Commission**  
1110 W. Washington Street, Phoenix, AZ 85007  
602-771-4501  
[www.azogcc.az.gov](http://www.azogcc.az.gov)  
Dennis L. Turner, Oil and Gas Administrator

Commissioners:  
Frank Thorwald, Chair  
J. Dale Nations, Ph.D., Vice Chair  
Stephen R. Cooper  
William C. Feyerabend

## NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION ARIZONA OIL AND GAS CONSERVATION COMMISSION

Pursuant to A.R.S. § 38-431.02, notice is hereby given to the members of the Arizona Oil and Gas Conservation Commission (AOGCC or Commission) and to the general public that the AOGCC will hold a meeting open to the public on **May 24, 2019, 10:00 a.m. in Room 3100B**, third floor of the Arizona Department of Environmental Quality, at 1110 W. Washington St., Phoenix, AZ.

### AGENDA:

1. Call to order
  - Establish a quorum
  - Conflicts of interest
2. Discussion, consideration and possible vote by the AOGCC on the Minutes of:
  - April 12, 2019 Rare Earth Public Hearing
  - April 12, 2019 Public Meeting
3. Enterprise Products, Adamana LPG Facility: Discussion, consideration and possible vote by the AOGCC on a proposal to convert to a 10 year workover cycle (*see* capacity determination at AAC R12-7-182 (D)). Mr. Mark Thompson, Sr. Director, Underground Storage Technology for Enterprise Products will give testimony. Mr. Thompson will present:
  - A request for a waiver of workover frequency
  - A brief history, justification, beneficial use and request AOGCC approval of shut-in status for Cavern Wells C-3 and C-5
  - A request for approval to perform pressure testing of the C-3 injection well.
4. Ranger Development, LLC (Ranger):
  - a. Dates when well activity suspended –The Commission shall discuss, consider and possibly vote to assign individual start dates for Temporary Abandonment (TA) or Shut-in (SI) status (April 12, 2019 meeting) for each well previously approved. The subject wells are listed in Table 1, next page. The Commission shall also discuss the current status 33-3 PD.
  - b. Temporary abandonment request for four additional wells: The AOGCC shall discuss, consider and vote to approve or deny the status, and their effective dates, of four wells listed in Table 2, next page.
  - c. Continuation of Ranger confidentiality request from the April 12, 2019 meeting: The Commission shall discuss, consider and possibly vote to extend the confidentiality status of individual Ranger wells, based on Tables 1 and 2.

**TABLE 1, RANGER DEVELOPMENT, LLC**

WELL STATUS (TA)	TD DATE*	DATE of LAST ACTIVITY
Ranger 35-1 Hortenstine	N/A	3/16/2017
Ram 1-9 Hortenstine	5/8/2018	5/8/2018
Ranger 3-1 PD	5/31/2016	4/4/2017
WELL STATUS (SI)	TD DATE*	DATE of LAST ACTIVITY
Ranger 2-1 MD	1/5/2017	2/8/2019
Ranger 28-1 NS	2/2/2018	2/4/2018
Ranger 31-1 NS	5/3/2015	2/12/2019
Ranger 33-1 PD	5/9/2015	1/26/2019
Ranger 33-2 PD	1/13/2017	5/9/2017
Ranger 33-3 PD (subject to completing remedial cement work)	1/21/2018	3/31/2019
Ranger 34-1 PD	6/16/2016	1/25/2019
Ranger 34-2 PD	12/14/2016	1/29/2018
Ranger 34-3 PD	12/5/2017	(effective 4/6/2018)

**TABLE 2, RANGER DEVELOPMENT, LLC**

TA WELL STATUS REQUESTED	TD DATE*	DATE of LAST ACTIVITY
Ranger 1-10A NS	4/10/2018	9/25/2018
Ranger 27-1 NS	4/25/2019	4/25/2019
Ranger 33-1 NS	4/3/2019	4/3/2019
Ranger 34-1 NS	3/31/2019	4/3/2019

\* A.A.C. R12-7-121(C)(1) TD=Total Depth reached

- d. Ranger 33-3 PD permit # 1220 – the Commission shall discuss, consider and vote on a request by Ranger to deepen the Ranger 33-3 PD well, for the purposes of testing the Supai Formation.
  - Well location: T 20 N, R 26 E, Sec. 33 dcc
  - Original permit issued July 20, 2017, shut in status approved April 6, 2018, contingent upon completing well remediation before SI began. In accordance with R12-7-112, the Commission may direct Ranger to complete the remedial cement work on this well before any work resumes.
5. SunCor Development #1-02, permit 908, (stratigraphic test in the Luke Salt body) –request by K. Hovnanian Homes to remove the surface well marker and bury casing in preparation for its Luke Landing Development.
  - Well location: T2N, R1W, Sec 2 cda
  - K. Hovnanian, or its representative, will discuss its plans to mitigate the effects of removing the surface marker of the well.
  - The Commission may discuss, consider and vote to approve, modify or deny K. Hovnanian's request to grant a variance to A.A.C. R12-7-127(D).
  - The Commission may also review and discuss with the developer other issues of concern, such as cement and casing integrity and other measures K. Hovnanian may be required to take.
6. SunCor-Copper Eagle #1-24, permit #909: Merit Partners, Inc., owner of the plugged and abandoned #1-24, has failed to comply with the AOGCC's request to record the well site location with the Maricopa County Recorder. The Commission shall discuss, consider and vote on possible enforcement steps for failure to record the well site location with the Maricopa County Recorder

7. Ongoing discussion of future needs of AOGCC
8. Report by the Oil and Gas Administrator. The Administrator will discuss the following:
  - AEP 16-1 resumes drilling on or about May 24, 2019
  - Pollard Helium 36-1 commenced drilling
9. Report by the AOGCC Chairman
  - Status of rulemakings-
10. Legislation affecting the Arizona Oil and Gas Conservation Commission
11. Call to the public: Members of the public may address the Commission during this Call to the Public. Pursuant to A.R.S. § 38-431.01(H), the Commission members may not discuss or take legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. Therefore, action taken as a result of public comment will be limited to directing staff to study the matter or scheduling the matter for further discussion and decision on a future agenda.
12. Review and Consider Future Agenda Items
13. Announcements
14. Executive Session. The Commission may convene an Executive Session to discuss the topics below. Any vote shall occur as part of the public meeting.
  - Discussion of duties and responsibilities of staff administration
  - Proposed budget; concerns.
15. Adjourn

Members of the Arizona Oil and Gas Conservation Commission will attend either in person or by telephone. The public may also attend a Commission meeting either in person or by telephone. Please contact the Oil and Gas administrator at least 48 hours before the scheduled meeting to make arrangements for a member of the public to attend by telephone. In cases where an emergency meeting is called by the Commission and 48 hours' notice is not possible, a minimum 24 hours' notice from the public is required.

The public may be afforded an opportunity to comment on any item on the agenda; however, by ruling of the Arizona Oil and Gas Conservation Commission, any member of the public wishing to speak at this meeting shall be limited to three (3) minutes (see Note 2). Note that agenda items may be taken out of order at the discretion of the Commission.

**NOTE 1:** The Arizona Oil and Gas Conservation Commission may vote to hold an Executive Session, pursuant to AR.S. § 38-431 .03(A)(3) or (4), which will not be open to the public, to consult with its attorney and receive legal advice with respect to any regular agenda item listed on this agenda.

**NOTE 2:** Any comments provided by the public at the Call to the Public shall not exceed three (3) minutes per speaker. For any comments made during the Call to the Public on any specific issue the overall comment period shall not exceed ten (10) minutes per side. The Commission shall have the authority to end any public discussion that exceeds ten (10) minutes per side or twenty (20) minutes in total.

For additional information about this meeting, contact Dennis L. Turner, Oil and Gas Program Administrator, [ogcc@azdeq.gov](mailto:ogcc@azdeq.gov) or (602) 771-4501. At least 24 hours prior to any meeting, a copy of the agenda will be available for public inspection at the Arizona Department of Environmental Quality (ADEQ), 1110 W. Washington Street, Phoenix, AZ 85007, or online at <http://www.azdeq.gov/ogcc-notices>. After approval by the Commission, the meeting minutes and background material provided to Commission members (with the exception of material relating to possible Executive Sessions) shall be made available at <http://www.azogcc.az.gov/meetings>.

ADEQ will take reasonable measures to provide access to department services to individuals with limited ability to speak, write or understand English and/or to those with disabilities. Requests for language interpretation, ASL interpretation, CART captioning services or disability accommodations must be made at least 48 hours in advance by contacting Ian Bingham, Title VI Nondiscrimination Coordinator at 602-771-4322 or [Bingham.Ian@azdeq.gov](mailto:Bingham.Ian@azdeq.gov). Teleprinter services are available by calling 7-1-1 at least 48 hours in advance to make necessary arrangements.

ADEQ tomará las medidas razonables para proveer acceso a los servicios del departamento a personas con capacidad limitada para hablar, escribir o entender inglés y / o para personas con discapacidades. Las solicitudes de servicios de interpretación de idiomas, interpretación ASL, subtítulos de CART, o adaptaciones por discapacidad deben realizarse con al menos 48 horas de anticipación contactando a Ian Bingham, Coordinador de Anti-Discriminación del Título VI al 602-771-4322 o [Bingham.Ian@azdeq.gov](mailto:Bingham.Ian@azdeq.gov). Los servicios de teleimpresores están disponibles llamando al 7-1-1 con al menos 48 horas de anticipación para hacer los arreglos necesarios.



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**Public Meeting of the Arizona Oil & Gas Conservation Commission**  
**10:00 a.m., May 24, 2019, Room 3100B**

Name / Organization – please print	email	phone
Mark Thompson - Enterprise Products	MTHOMPSON@EPROD.COM	225-603-1201
FRANK THORWALD		
William Feyerabend OEGC		
DENNIS TURNER - AOGCC Admin	ogcc@azdeq.gov	
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TAWNYA COOK - ADEQ	jballard@adeq.com	
Jim Ballard		
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JOEL TRIMARCHE KHOUV.	jtrimarche@khov.com	602 920 5442
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# Arizona Oil and Gas Conservation Commission

## Memorandum

**Date:** May 23, 2019  
**To:** Members of the Arizona Oil and Gas Conservation Commission  
**From:** Dennis L. Turner, O&G Admin.  
**Subject:** \*\*\*CONFIDENTIAL\*\*\* Briefing Memo and recommended actions pertaining to the AOGCC Regular Meeting for May 24, 2019

### RANGER DEVELOPMENT, LLC.

Temporary abandonment (TA) and shut-in (SI) commencement dates for wells: At the April 12, 2019 meeting, Dr. Nations included in his motions for TA and SI status that the start date be tied to the date of the last activity, to extend for five (5) years. The various dates of last activity were unknown at that time and I asked Ranger to provide those dates. See Table 1, below.

The wells highlighted in yellow in Table 1 indicate instances where the time between completion of drilling and date of last activity exceeded 10 months. In most cases, Ranger was not continually onsite performing work; at some point in time all eight (8) wells were inactive for more than 60 days, as regulated by AAC R12-7-125(A). Note also that six (6) of the eight (8) wells had no activity for more than a year, without any Commission approval.

To simplify things, I recommend that the Commission approve 5-year dates for TA or SI status tied to the date of last activity, according to Table 1:

**TABLE 1, RANGER DEVELOPMENT, LLC**

WELL STATUS (TA)	TD DATE*	DATE of LAST ACTIVITY	RECOMMENDED EXPIRATION DATE
Ranger 35-1 Hortenstine	N/A	3/16/2017	3/3/2022
Ram 1-9 Hortenstine	5/8/2018	5/8/2018	5/8/2023
Ranger 3-1 PD	5/31/2016	4/4/2017	4/4/2022
WELL STATUS (SI)	TD DATE*	DATE of LAST ACTIVITY	RECOMMENDED EXPIRATION DATE
Ranger 2-1 MD	1/5/2017	2/8/2019	2/8/2024
Ranger 28-1 NS	2/2/2018	2/4/2018	2/4/2023
Ranger 31-1 NS	5/3/2015	2/12/2019	2/12/2024
Ranger 33-1 PD	5/9/2015	1/26/2019	1/26/2024
Ranger 33-2 PD	1/13/2017	5/9/2017	5/9/2022
Ranger 33-3 PD (subject to completing remedial cement work)	1/21/2018	3/31/2019	3/31/2024
Ranger 34-1 PD	6/16/2016	1/25/2019	1/25/2024
Ranger 34-2 PD	12/14/2016	1/29/2018	1/29/2023
Ranger 34-3 PD	12/5/2017	(effective 4/6/2018)	N / A

\* A.A.C. R12-7-121(C)(1) TD=Total Depth reached

I recommend approval of Ranger's request to TA the four wells in Table 2 and their expiration dates.

**TABLE 2 RANGER DEVELOPMENT, LLC**

<b>WELL STATUS (other)</b>	<b>TD DATE*</b>	<b>DATE of LAST ACTIVITY</b>	<b>RECOMMENDED EXPIRATION DATE</b>
Ranger 1-10A NS	4/10/2018	9/25/2018	9/25/2023
Ranger 27-1 NS	4/25/2019	4/25/2019	4/25/2024
Ranger 33-1 NS	4/3/2019	4/3/2019	4/3/2024
Ranger 34-1 NS	3/31/2019	4/3/2019	4/3/2024

\* A.A.C. R12-7-121(C)(1) TD=Total Depth reached

#### **ENTERPRISE PRODUCTS, ADAMANA LPG FACILITY.**

AAC R12-7-125(A) –As I indicated in my April 10, 2019 memo, Adamana previously shut in two injection wells (cavern wells #C3 and #C5), but did not comply with AAC R12-7-125(B) and R12-7-178(2). In addition, although the facility has told me it conducts safety inspections in compliance with R12-7-182(C), it does not submit the required written reports to the Commission. I addressed these concerns during my inspection of April 25, 2019.

In conjunction with my meeting with the Adamana facility personnel, I spoke to Mark Thompson, Enterprise Products' Senior Director of underground storage technology (nationwide) about bringing Adamana into compliance. Mr. Thompson will appear on May 24, 2019 to demonstrate a future beneficial use for these two wells, request approval of shut in status and request change of workover frequency from 5 years to 10 years. MIT/ sonar capacity determinations will continue to be performed on five-year intervals, pursuant to R12-7-179(D) (similar to Plains Bumstead).

#### **SUNCOR DEVELOPMENT #1-02, PERMIT 908,** (stratigraphic test in the Luke Salt body)

K. Hovnanian Homes seeks a variance to R12-7-127(F) to remove the surface expression of the well and bury the casing in preparation for its Luke Landing Development. This well is situated in an area of growing population density near Luke AFB.

According to the well file, the well was properly plugged and abandoned, with a cement plug extending from the surface to 220 feet depth and another 220-foot plug set at 1,000ft. The TD is 5,135 ft. As reported to me by the consultant, the only above ground expression is surface casing and a knocked down PVC pipe with no markings. Presumably, the metal pipe required by R12-7-127(F) was once there, but is missing. In addition, there are 11 water wells in the vicinity that are registered with the Arizona Department of Water Resources. The water wells range in depth from 158 ft. to 824 ft. Six of the wells are less than 600 ft. deep.

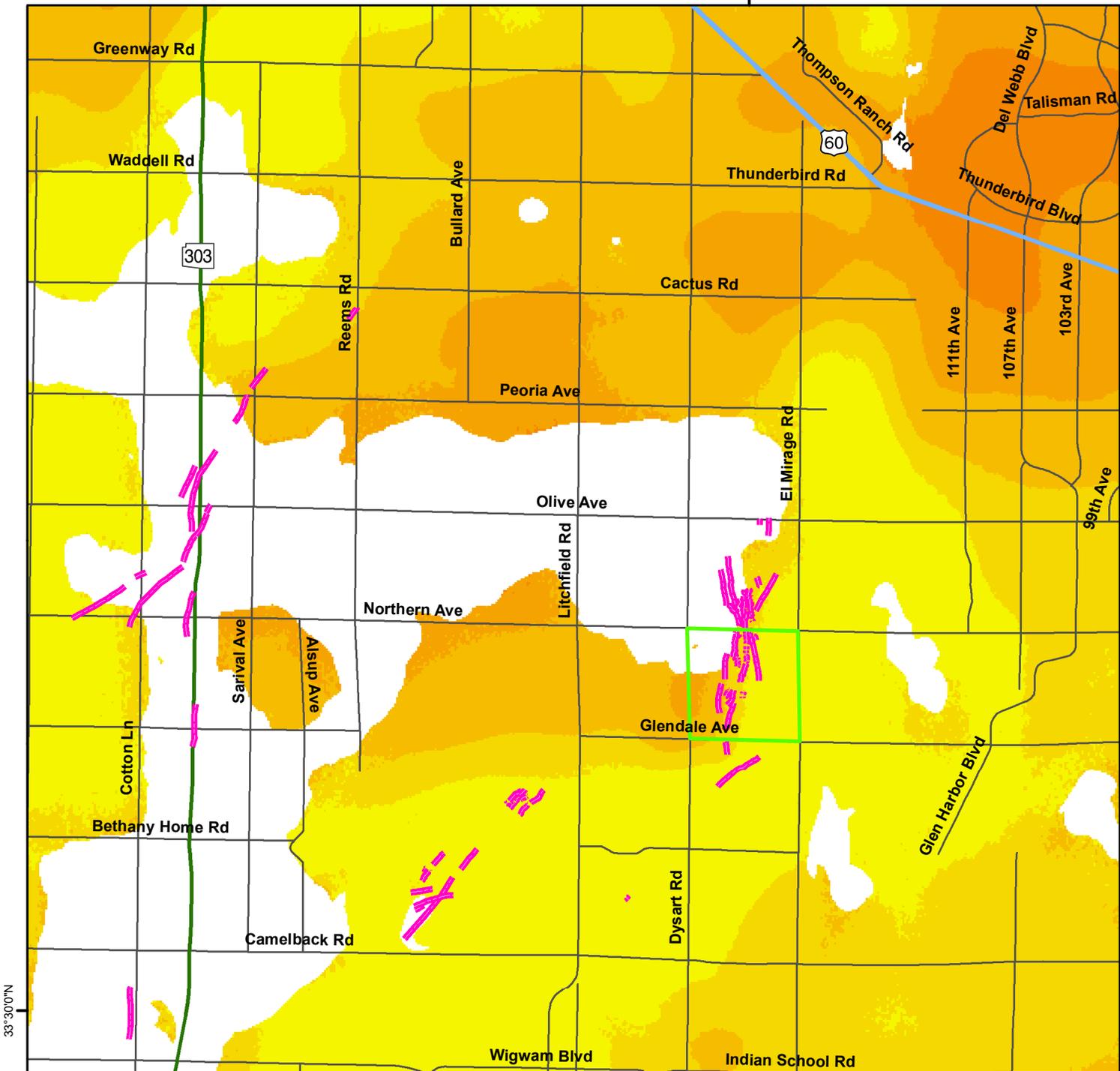
In order for the Commission to approve the developer's request for waiver, I recommend the following:

1. Excavate at least ten (10) feet of material surrounding the well casing, being careful not to disturb the casing and cement plug inside.
2. Carefully cut the surface casing and cement plug at the bottom of the excavation.
3. Install a heavy metal plate over all tubulars. The well location and identity shall be permanently inscribed on the plate with the information required by A.A.C. R12-7-106(A).
4. The excavated portion around well shall be backfilled with three (3) to five (5) feet of granular material, liberally infused with bright colored, highly visible and permanent dye and stabilized with cement to minimize leaching of the dye over time.
5. Over this layer, place clean imported fill material, compacted with wheel and bucket tamping.
6. Before burial of the plate, a surveyor licensed in the state of Arizona, shall survey the location of the well site, which shall include geodetic coordinates.

7. Upon completion of placement of the clean fill material, the ground surface shall be returned to its current condition.
8. A temporary marker, the same or similar to that currently at the site, shall be placed above ground at the location of the well after all work is completed.
9. Photo-document the above required closure steps to confirm completion of the plug and abandonment of the well to statute and rule.
10. Within 60 days of completing the work, K. Hovnanian Homes shall provide the Maricopa County Recorder's office with a copy of any final report, with photos and the well's GPS coordinates. K. Hovnanian Homes shall record the GPS coordinates of the wellhead's cover plate location with the Maricopa County Recorder.
11. K. Hovnanian Homes shall provide the Commission with a copy of the recorded document.
12. Finally, I recommend that K. Hovnanian Homes consider designing the subdivision to have open space or at least be available to future excavation, such as a street or intersection. Other states make this requirement routinely, because of the history of improperly plugged and leaking wells over time.

The area is active with land subsidence. Earth fissures are developing from past groundwater withdrawal, as depicted on the attached map, "Total Land Subsidence in Western Metropolitan Phoenix, Maricopa County." K. Hovnanian Homes intends to bury the active fissures before home construction begins. A light green box on the attached map outlines Section 2 where the well is located. Note the presence of the fissures in violet in the same section. Homes built in this area are likely at risk of cracked foundations and other extreme settlement issues over time.

112°20'0"W



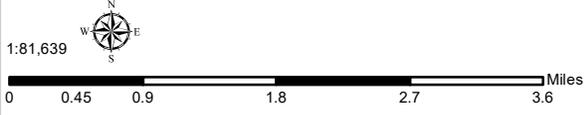
33°30'0"N

**Total Land Subsidence in Western Metropolitan Phoenix, Maricopa County**  
**Based on Radarsat-2 Satellite Interferometric Synthetic Aperture Radar (InSAR) Data**  
**Time Period of Analysis: 9.0 Years 05/08/2010 To 04/15/2019**

© MDA 2010 - 2019

**Explanation**  
 05/08/2010 To 04/15/2019

	Decorrelation/No Data		Subsidence Feature
	Greater 40 cm (15.7 in)		Hardrock
	25 - 40 cm (9.8 - 15.7 in)		T2N R1W S2
	15 - 25 cm (5.9 - 9.8 in)		Earth Fissures
	10 - 15 cm (3.9 - 5.9 in)		CAP Canal
	6 - 10 cm (2.4 - 3.9 in)		Interstate
	4 - 6 cm (1.6 - 2.4 in)		US
	2 - 4 cm (0.8 - 1.6 in)		State
	1 - 2 cm (0.4 - 0.8 in)		Roads
	0 - 1 cm (0 - 0.4 in)		



Decorrelation (white areas) are areas where the phase of the received satellite signal changed between satellite passes, causing the data to be unusable. This occurs in areas where the land surface has been disturbed (i.e. bodies of water, snow, agriculture areas, areas of development, etc).

Earth fissures were mapped by the Arizona Geological Survey. For information on earth fissures visit: [www.azgs.gov/EFC](http://www.azgs.gov/EFC)

Coordinate System: NAD 1983 UTM Zone 12N  
 Projection: Transverse Mercator  
 Datum: North American 1983  
 Units: Meter  
 Created: 5/22/2019

